## **ABSTRACT**

The present invention provides a method of reducing intraocular pressure by administering pharmaceutical compositions comprising indole derivatives. The pharmaceutical compositions useful in this invention comprise indole derivatives and melatonin analogs of Formulae I-IV. A preferred embodiment is a method of lowering intraocular pressure using 5-(methoxycarbonylamino)-N-acetyltryptamine (5-MCA-NAT), also known as GR 135531, which has a prolonged duration of action and greater efficacy in lowering intraocular pressure compared to melatonin. The present invention further provides a method of treating disorders associated with ocular hypertension, and a method of treating various forms of glaucoma; the method comprises administering an effective dose of a pharmacuetical composition comprising an indole derivative with or without agents commonly used to treat such disorders.

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